Utah Public Education Technology Plan – 2004

INTRODUCTION

"How can we best prepare students to succeed in the 21st century? This is a question of paramount importance to America's educators, employers, parents, and the public."

The Utah Public Education Technology Plan supports Utah educators as they equip students with the technology skills necessary to successfully live, learn, and work in the 21st century. It serves as the vision for educational technology in Utah and a guide for making local educational technology decisions and educational technology planning.

The Milken Seven Dimensions of Progress is the framework for the Utah Public Education Technology Plan. The framework is a guide for policymakers and educators to assess whether or not their schools provide the conditions necessary for improving student learning with technology. The plan intends that students acquire marketable technology skills and have access to technology tools across the curriculum, particularly in math and reading.

LEARNERS

Learners use the technology in ways that deepen their understanding of the content in the academics standards and, at the same time, advance their knowledge of the world around them.

- *Improving on the Basics:*
  Every student uses technology to deepen understanding of core curriculum concepts and to elicit higher order thinking skills

- *Understanding:*
  Every student has the ability to access information, synthesize, and publish information to demonstrate understanding.

- *Ethics:*
  Teachers and students understand and observe appropriate-use guidelines for online content, software, etc..

- *Skills:*
  Students are trained in the use of word processing, spreadsheets, graphics, presentation software, e-mail, Internet research, hardware, etc. Students achieve at or above minimum keyboarding standards. These skills are applied in all areas of the curriculum.

LEARNING ENVIRONMENTS

The learning environment is designed to achieve performance by students through the alignment of standards, research-proven learning practices and contemporary technology.

- *Technology Access:*
  All students and teachers have access to information and information management tools via readily available information devices.

- *Infrastructure:*
  Every educator, student and parent have access to an education system that provides and supports a technology infrastructure. Every school has a website that is current and connected to critical educational information. In addition, teachers have a curriculum page with assignments, classroom policies an e-mail address and other related information.

- *Networks:*
  All schools have fast, reliable network connections with adequate bandwidth and technical support for an education-centered network.

- *Integrated Technology Use:*
  All classrooms are presentation-ready based on the needs of the content area being taught. Mini-labs are available for teachers who integrate student technology use with their regular curriculum.

PROFESSIONAL COMPETENCY

The educator is fluent with technology and he/she effectively uses technology to the learning advantage of his/her students.

- *Commitment:*
  Administrators understand, believe in, and demonstrate commitment to classroom technology use for enhancing instruction and productivity.

- *Administrators:*
  Local administrators model and implement the use of technology. They use technology appropriately and ensure those in their charge do as well. District office personnel demonstrate competencies and provide leadership in appropriate use of technology.

  Administrators assure staff and professional development includes appropriate technology integration.

- *Teachers:*
  Teachers are competent in using word processing, spreadsheets, graphics, presentation software, e-mail, Internet, data capture and analysis resources.

    - Teachers use technology to improve

        - learning environment – student-centered

        - teaching effectiveness –reflective practice

- teaching efficiency – data-mining

Teachers use data capture and analysis tools to track individual student learning and to inform instructional decisions.

Teachers remediate students' lack of technology skills as defined by the state technology core standards, implementing appropriate interventions.

- *Technology Preparation:*
  Technology-rich staff development for educators is provided by professional development experts in sessions designed to support local school improvement initiatives, Utah State Core Curriculum, and comply with the Utah Staff Development Guidelines.

  Utah's colleges of education require technology competencies for prospective teachers and administrators for graduation. Pre-service teachers are taught how to enhance teaching and learning with technology and to make data-driven instructional decisions.

- *Continued Learning:*
  Because technology competency is part of quality teaching, each school improvement plan includes provisions for ongoing staff development using technology tools and resources.

- *Resources for Professional Development:*
  Each building has an onsite support structure for technology-rich professional development. Trained specialists are available on the state, district, and school level for assistance in effective use of technology for curriculum. There is a certified technology professional development mentor at every school. USOE provides and maintains an online directory of resources including human resources, and a clearinghouse of current research and best practices.

SYSTEM CAPACITY

The education system is reengineering itself to systematically meet the needs of learners in this knowledge-based, global society.

- *Support:*
  Dedicated and available support personnel in every district and/or school are available so educators can take advantage of available tools and resources. Students are trained to take over some of the technical needs of equipment maintenance and troubleshooting.

- Pre-service providers, school administrators and professional development staff have formal support groups for technology integration to leverage existing expertise.

- *Web Site:*
  School administrators assure school websites are current, connected to critical educational information and highlight the school's improvement efforts.

- *Distance Learning:*

Distance learning (such as remediation, advanced placement instruction, and coursework not offered at local schools) is available for student use and to support local, school-based professional development.

COMMUNITY CONNECTIONS

The school-community relationship is one of trust and respect with mutually beneficial, sustainable partnerships in the area of learning technology.

- *Higher Education:*
  College and university professionals provide leadership and up-to-date information in best practices and assist in research.

- *Volunteers:*
  Administrators involve the business community as volunteers in technology planning, professional development, technology use, integration, and acquisition.

- *Parents:*
  Administrators emphasize and promote parental involvement in technology for teaching and tracking learning. Parental access to educational information is provided before, during and after school.

TECHNOLOGY CAPACITY

There are adequate technology, networks, electronic resources and support to meet the education system's learning goals.

- *Access:*
  Where appropriate for classroom learning goals, computer to student ratio is 1-1.

- *Technology Infrastructure:*
  A minimum standard technology infrastructure is installed at every school. Wireless networks are used as needed to reduce networking costs for technology-access in the classroom, . Consulting services from regional service centers and the Utah Education Network are available to make informed and financially responsible LAN decisions.

- *Safety:*
  Internet content is filtered to restrict access to inappropriate resources.

ACCOUNTABILITY

There is agreement on what success with technology looks like. There are measures in place to track progress and report results.

- *Personnel Evaluations:*
  Educator mentors evaluate the effective use of technology in their schools by

  - Tracking teacher qualification or endorsement
  - Monitoring reflective practices such as annotated portfolios demonstrating a deepening understanding of student-centered learning
  - Using data analysis to track learning and identify gaps and needs
  - Working with teachers to carefully apply technology-enhanced teaching strategies to deepen student understanding of curriculum concepts.
  - Supporting teachers in the effective use of technology by professional development in all curriculum areas.

- *Learning:*
  Data analysis tools support the Utah State Core Curriculum as:

  All districts and schools use data capture and technology tools to track learning, identify gaps and needs, measure academic progress and achievement to inform practice.

- *Measurements:*
  Technology competency is measured across the spectrum as:

  - All administrators and teachers attain at least the emergent level in the UTAP self-assessment in the first four categories.
  - All students demonstrate competency in 7th grade as a part of the TLC program.
  - Demonstrated technology proficiency is a requirement for student graduation
  - [Teacher evaluation values appropriate technology integration.]

- *Research:*
  Research is conducted to determine the extent to which technology- rich professional development for student-centered teaching improves student learning.

RELATED INFORMATION

(Learning for the 21st Century, p.2, http://www.21stcenturyskills.org)

(More information on the Seven Dimensions is available at:
(http://www.mff.org/publications/publications.taf?page=158)

Utah Staff Development Guidelines